

**National 5**

**Homework EF1(N)**

1. Evaluate, without a calculator:

(a)  $1\frac{1}{3} + 1\frac{1}{4}$

(b)  $2\frac{1}{5} - 1\frac{1}{2}$

(c)  $\frac{3}{5} + 2\frac{1}{4}$

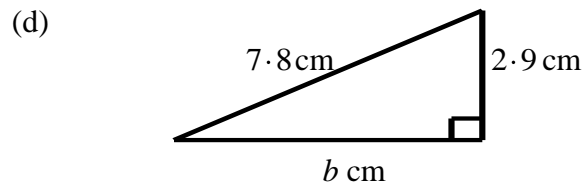
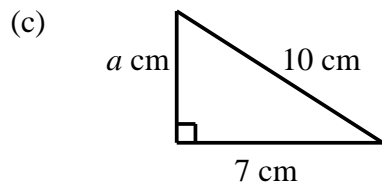
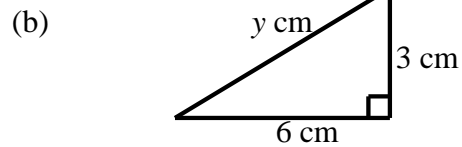
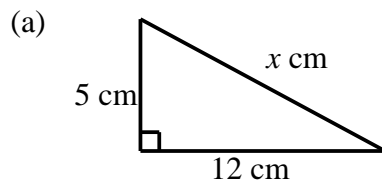
2. Evaluate, without a calculator:

(a)  $1.25 \times 400$

(b)  $16.2 \div 200$

(c)  $16000 \div 320$

3. Find the length of the unknown side in each of the following triangles:



4. A rectangle has length 8 cm and breadth 5 cm. Calculate the length of a diagonal, to one decimal place.

5. An equilateral triangle has sides of 12 cm.

(a) Calculate the length of its altitude.

(b) Hence calculate its area.

6. Evaluate:

(a)  $-7 \times -5$

(b)  $-18 \div -9$

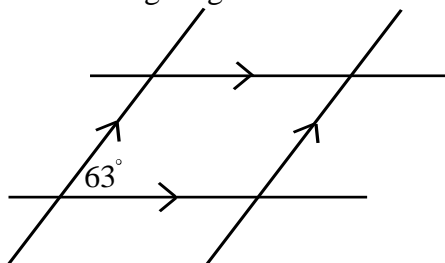
(c)  $-9^2$

(d)  $-9^2$

(e)  $-2^3$

(f)  $-1^{100}$

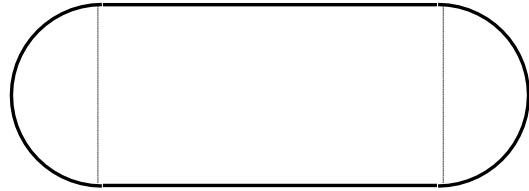
7. Copy the following diagram and fill in the size of all remaining angles:



8. A car travels at an average speed of 48 km/hr for 3 hours 15 minutes. How far does it travel?

9. £1400 is divided in the ratio 3 : 4. Calculate the larger share.
10. The diagram below shows a shape consisting of a rectangle and two half-circles. The rectangle has length 80 cm and breadth 40 cm.

- Calculate the area of the shape.
- Calculate the perimeter of the shape.



11. A cuboid has length 10 cm, breadth 6cm and height 4 cm. Calculate:

- (a) Its volume
- (b) Its total surface area.

12. Write each of these numbers in standard form:

- (a) 107 000 000                      (b) 0.000 042                      (c)  $17 \times 0.0003$

13. Write each of these numbers in the normal way:

- (a)  $4.18 \times 10^4$       (b)  $3 \times 10^{-5}$       (c)  $5.03 \times 10^{-1}$